

REMARKS

Reconsideration of the above-identified application is respectfully requested. Claim 11 has been rewritten into independent form. Claim 26 has been canceled, and Claims 38-41 have been added. Therefore, Claims 1-25, and 27-41 are pending in the present application. Applicant acknowledges with appreciation the indication of allowable subject matter with regard to Claims 8, 11-15, 19-21, 25, and 35-36.

Claims 1-7, 9-10, 16-18, 22-24, 26-34, and 37 were rejected in an October 7, 2004, Office Action (hereinafter "Office Action") under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,538,893, issued to Tinsley. As will be discussed in more detail below, applicant believes that the present application is in condition for allowance. Accordingly, applicant respectfully requests early and favorable action and allowance of all pending claims.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-7, 9-10, 16-18, 22-24, 26-34, and 37 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Tinsley. Claim 26 has been canceled, thus rendering the rejection to this claim moot. Applicant respectfully traverses the rejections to the remaining claims. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). For at least the following reasons, applicant respectfully assert that the claimed combination of features recited in Claims 1-7, 9-10, 16-18, 22-24, 27-34, and 37 are neither taught nor suggested by the cited prior art.

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Claims 1, 27, 31, and 34 are generally directed to engines. Each claim recites a housing formed with either a pair of side-by-side intersecting cylindrical cavities (See Claim 1), a pair of side-by-side intersecting substantially cylindrical cavities (See Claim 27 and 34), or parallel cylindrically shaped intersecting cavities (See Claim 31). Conversely, Tinsley teaches, on page 2, lines 42-45, that the working cavities of the engine are formed by an elongated inner casing 12 of a general elliptical cross-sectional shape. Applicant respectfully asserts that intersecting substantially cylindrical cavities, as recited in the claims, and an elliptical cavity, as disclosed by Tinsley, are quite different, especially in a working environment of a dual rotor engine. Accordingly, applicant respectfully asserts that Tinsley fails to teach the side-by-side intersecting cylindrical cavities, as recited in the claims.

Further, applicant respectfully asserts there is no suggestion to utilize cylindrical cavities in the engine taught by Tinsley for at least the following reason. The engine of Tinsley requires additional space within the working cavity just preceding and subsequent to combustion, as shown in FIGURE 1. This additional space allows the pistons 46 to reciprocate radially outward over an element 48 with respect to the rotational axis of the rotor 19 or 20. The piston 46 is required to reciprocate outwardly preceding combustion to maximize the volume of the secondary combustion chamber 38 prior to the compression stroke (compressing the air/fuel mixture in the secondary combustion chamber) caused by further rotor rotation. If cylindrical cavities were used by Tinsley, the additional spaced need for the pistons to slide outwardly would not exist, and thus, the engine of Tinsley would not be able to operate in the manner disclosed. Therefore, applicant asserts that one skilled in the art would not change the geometry of the cavities taught in Tinsley to intersecting cylindrical cavities as recited in the pending claims since it would directly affect the operation of the engine.

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It is clear that Tinsley fails to teach or suggest the recited combination of elements of Claims 1, 27, 31, and 34. Therefore, applicant respectfully submit that the combinations of features recited in Claims 1, 27, 31, and 34 are allowable over the prior art. Thus, applicant respectfully requests the pending rejections of Claims 1, 27, 31, and 34 under 35 U.S.C. § 102(b) be withdrawn. Accordingly, applicant respectfully requests withdrawal of the pending rejections under 35 U.S.C. § 102(b) of Claims 2-7, 9-10, 16-18, 22-24, 28-33, and 37 which depend from one of the allowable Claims 1, 27, 31, and 34.

Dependent Claim 3

Dependent Claim 3 further adds to Claim 1 the limitation that the lobes are cycloidal or ovoidal. As best shown in FIGURE 1, the lobes of Tinsley cannot be considered ovoidal or cycloidal. Accordingly, for at least this additional reason, applicant asserts that Claim 3 is allowable of the cited prior art. Therefore, applicant respectfully requests withdrawal of the rejection to Claim 3.

New Claims 38-41

New Claims 38-41 have been added to particularly point out and distinctly claim the novel aspects of the present invention. Applicant respectfully asserts that the newly submitted claims recite combinations of features neither taught nor suggested by the prior art. Accordingly, applicant respectfully submits that new Claims 38-41 are in condition for allowance.

CONCLUSION

In light of the foregoing amendments and remarks, applicant asserts that the claims of the present application recite combinations of features neither taught nor suggested by the prior art. Therefore, applicant respectfully requests early and favorable action and the allowance of all pending claims. If any further questions remain, the Examiner is invited to telephone applicant's attorney at the number listed below.

Respectfully submitted,

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Date: April 6, 2005

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